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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2625

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,326

Applicant(s)

SCHULTE ET AL.

Examiner

James A. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 4-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 09 May 2006 have been fully considered but they are not persuasive.

Applicant's present arguments with respect to the propriety of the outstanding prior art rejections are based on the present amendments to the claims and the newly added claims. As discussed in the Interview Summary of 09 May 2006, while Examiner agrees that Applicant's proposed amendments to the claims overcome the previous rejections, further consideration the already applied references, along with a further search of the prior art, has been performed. New grounds of rejection, which have been necessitated by the present amendments to the claims, have been discovered and are set forth in detail below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes (US Patent 6,345,128 B1) in view of Miyazaki (US Patent Application Publication 2005/0231631 A1).

Regarding claim 1: Stokes discloses providing a plurality of tone scale correcting transforms (figure 1(104) and column 3,

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lines 31-36 of Stokes), each such transform being unique to a different exposure condition (column 3, lines 22-27 and lines 35-39 of Stokes) and which corrects tone scale for a digital image captured by an image capture device (column 2, lines 53-55 and lines 60-63 of Stokes) for such unique exposure conditions (column 3, lines 15-20 of Stokes) and to be printed by the printer (column 2, lines 55-59 of Stokes); applying the plurality of transforms to the digital image (figure 1(106) and column 4, lines 33-37 of Stokes) and printing (column 2, lines 55-57 of Stokes) a corresponding plurality of transform images corresponding to the digital image on which the transforms were applied (column 4, lines 33-39 of Stokes); determining from the printed plurality of transform images the most satisfying printed transform image (column 6, lines 7-12 of Stokes) which corresponds to a particular transform, from all of the plurality of transforms to be used to make at least one final visual image from the digital image (column 7, lines 21-27 of Stokes); and printing the digital image with the printer (column 2, lines 55-59 of Stokes) using the particular transform that is determined (column 6, lines 7-12 of Stokes) to correspond with the most satisfying printed transform image in order to make the final visual image (column 7, lines 21-27 of Stokes).

Stokes does not disclose expressly providing a plurality of exposure correcting transforms which correct exposure for the captured digital image; and that said particular transform is determined by a user.

Miyazaki discloses providing a plurality of exposure correcting transforms which correct exposure for the captured digital image (figure 13 and para. 0111, line 1 to para. 0112,

line 5 of Miyazaki); and that the particular transform is determined by a user (para. 0112, lines 5-7 of Miyazaki).

Stokes and Miyazaki are combinable because they are from the same field of endeavor, namely image transform correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include exposure conditions as part of the transforms, and allow a single user to determine what is the most pleasing transformation, as taught by Miyazaki. The suggestion for doing so would have been that the exposure level is another adjustable parameter which significantly affects the quality of a resultant image. Furthermore, by allowing the specific user of the device to select the output, the result will be better tailored to the actual user of the device for the current conditions of the device. Therefore, it would have been obvious to combine Miyazaki with Stokes to obtain the invention as specified in claim 1.

Regarding claim 7: Stokes discloses that a plurality of transform images are printed as a single composite image on a single sheet of the medium (column 6, lines 25-33 of Stokes).

Regarding claims 8-9: Stokes discloses printing the plurality of transform images (column 2, lines 55-57 and column 4, lines 33-39 of Stokes).

Stokes does not disclose expressly that the plurality of printed transform images printed on the single composite image are arranged in an array including a plurality of rows and a plurality of columns, wherein the composite images include at least nine printed transform images.

Miyazaki discloses that the plurality of displayed transform images are displayed on the single composite image and are arranged in an array including a plurality of rows and a plural-

ity of columns (figure 13(26) and para. 0112, lines 1-5 of Miyazaki), wherein the composite image includes at least nine displayed transform image (as can clearly be seen in figure 13 of Miyazaki).

Stokes and Miyazaki are combinable because they are from the same field of endeavor, namely image transform correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to print out the plurality of transform images taught by Stokes, in the multiframe format taught by Miyazaki. The motivation for doing so would have been to allow for ease of operator selection of the image. Therefore, it would have been obvious to combine Miyazaki with Stokes to obtain the invention as specified in claims 8-9.

4. Claims 4-6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes (US Patent 6,345,128 B1) in view of Miyazaki (US Patent Application Publication 2005/0231631 A1) and Shalit (US Patent 5,345,315).

Regarding claim 4: Stokes discloses providing a plurality of tone scale correcting transforms (figure 1(104) and column 3, lines 31-36 of Stokes), wherein said transforms are nonlinear (column 3, lines 52-67 of Stokes), each such nonlinear transform being unique to a different exposure condition (column 3, lines 22-27 and lines 35-39 of Stokes) and which corrects tone scale for a digital image captured by an image capture device (column 2, lines 53-55 and lines 60-63 of Stokes) for such unique exposure conditions (column 3, lines 15-20 of Stokes) and to be printed by the printer (column 2, lines 55-59 of Stokes); applying the plurality of nonlinear transforms to the digital image

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and producing a plurality of visual transform images (figure 1 (106) and column 4, lines 33-37 of Stokes) and printing on a particular printer (column 2, lines 55-57 of Stokes) such corresponding plurality of visual transform images corresponding to the digital image on which the nonlinear transforms were applied (column 4, lines 37-39 of Stokes); determining the most satisfying printed visual transform image (column 6, lines 7-12 of Stokes) which corresponds to a particular nonlinear transform, from all the plurality of transforms, to be used to make at least one final visual image from the digital image which is corrected for tone scale when printed by the printer (column 7, lines 21-27 of Stokes); and printing the digital image with the printer (column 2, lines 55-59 of Stokes) using the particular transform that is determined (column 6, lines 7-12 of Stokes) to correspond with the most satisfying printed transform image in order to make the final visual image (column 7, lines 21-27 of Stokes).

Stokes does not disclose expressly producing a plurality of visual digital images on a display so that the user can correlate the difference between display and printed images; providing a plurality of exposure correcting transforms which correct exposure for the captured digital image; and that said particular transform is determined by a user, rather than multiple users.

Miyazaki discloses providing a plurality of exposure correcting transforms which correct exposure for the captured digital image (figure 13 and para. 0111, line 1 to para. 0112, line 5 of Miyazaki); and that the particular transform is determined by a user (para. 0112, lines 5-7 of Miyazaki).

Stokes and Miyazaki are combinable because they are from the same field of endeavor, namely image transform correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include exposure conditions as part of the transforms, and allow a single user to determine what is the most pleasing transformation, as taught by Miyazaki. The suggestion for doing so would have been that the exposure level is another adjustable parameter which significantly affects the quality of a resultant image. Furthermore, by allowing the specific user of the device to select the output, the result will be better tailored to the actual user of the device for the current conditions of the device. Therefore, it would have been obvious to combine Miyazaki with Stokes.

Stokes in view of Miyazaki does not disclose expressly producing a plurality of visual digital images on a display so that the user can correlate the difference between display and printed images.

Shalit discloses displaying a visual digital image on a display (column 7, lines 36-41 of Shalit) so that the difference between the image on the display and the printed image can be correlated (column 7, lines 45-48 of Shalit).

Stokes in view of Miyazaki is combinable with Shalit because they are from the same field of endeavor, namely tone correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display the plurality of digital images taught by Stokes on a display so that the difference between the image on the display and the printed image can be correlated, as taught by Shalit, by the user performing the overall method. The

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motivation for doing so would have been to ensure that the tone reproduction curve is such that the printed output is the same as the image that a user would see displayed on a monitor (column 6, lines 34-37 of Shalit). Therefore, it would have been obvious to combine Shalit with Stokes in view of Miyazaki to obtain the invention as specified in claim 4.

Regarding claims 5 and 6: Stokes does not disclose expressly that the image capture device is a digital camera and the medium is a photographic silver halide element, ink jet receiver, or thermal print medium.

Miyazaki discloses that the image capture device is a digital camera (para. 0033, lines 1-3 of Miyazaki).

Stokes and Miyazaki are combinable because they are from the same field of endeavor, namely image transform correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use a digital camera as the image capture device. The suggestion for doing so would have been that a digital camera is a common, readily available image input device. Therefore, it would have been obvious to combine Miyazaki with Stokes.

Stokes in view of Miyazaki does not disclose expressly that the medium is a photographic silver halide element, ink jet receiver, or thermal print medium.

Shalit discloses that the medium is a photographic silver halide element, ink jet receiver (column 12, lines 50-51 of Shalit), or thermal print medium (column 5, lines 26-34 of Shalit).

Stokes in view of Miyazaki is combinable with Shalit because they are from the same field of endeavor, namely tone

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correction for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to specifically use an ink jet receiver or thermal print medium as the output medium, as taught by Shalit. The suggestion for doing so would have been that ink jet and thermal printing are common and readily available types of printing. Therefore, it would have been obvious to combine Shalit with Stokes in view of Miyazaki to obtain the invention as specified in claims 5 and 6.

Regarding claim 10: Stokes discloses that a plurality of printed visual transform images are printed as a single composite image on a single sheet of the medium (column 6, lines 25-33 of Stokes).

Regarding claims 11-12: Stokes discloses printing the plurality of transform images (column 2, lines 55-57 and column 4, lines 33-39 of Stokes).

Stokes does not disclose expressly that the plurality of printed visual transform images printed on the single composite image are arranged in an array including a plurality of rows and a plurality of columns, wherein the composite image includes at least nine displayed visual transform image.

Miyazaki discloses that the plurality of displayed visual transform images are displayed on the single composite image and are arranged in an array including a plurality of rows and a plurality of columns (figure 13(26) and para. 0112, lines 1-5 of Miyazaki), wherein the composite image includes at least nine displayed visual transform image (as can clearly be seen in figure 13 of Miyazaki).

Stokes and Miyazaki are combinable because they are from the same field of endeavor, namely image transform correction

for digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to print out the plurality of visual transform images, as taught by Stokes, in the multiframe format taught by Miyazaki. The motivation for doing so would have been to allow for ease of operator selection of the image. Therefore, it would have been obvious to combine Miyazaki with Stokes to obtain the invention as specified in claims 11-12.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



14 July 2006

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